Daily Diary Report by Bid Item

Contract No.: **04-0120F4**
Diary #: **308** **Const Calendar Day:** 617 **Date:** **18-May-2011** **Wednesday**
Inspector Name: **Bruce, Matt** **Title:** **Transportation Engineer**
Inspection Type: Continuous
Shift Hours: 07:00 am 04:30 pm **Break:** 00:30 **Over Time:** 01:00
Federal ID:
Location:
Reviewer: **Mathur, Lalit** **Approved Date:** **Status:** Submit

04-0120F4
04-SF-80-13.2/13.9
Self-Anchored
Suspension Bridge

Weather

Temperature **7 AM** 50 - 60 **12 PM** 50 - 60 **4PM** 50 - 60
Precipitation 0.00" **Condition** Partly overcast and windy

Working Day ☑ If no, explain:

Diary: Dispute ☐

Work description.

- Assisted Chris Havel with monitoring the Hinge K Macalloy rod stressing operation. No significant problems were encountered with the actual stressing of the Macalloy rods. Additional measurements were taken on rows 22, 23, 26, and 28 in the stressing sequence of South W2E Hinge K Macalloy rods. In general the different methods of measuring yield the same result within minimal error of the method being used by the ABF ironworkers. Both methods of measuring tried to capture the "anchor set" of the "live end" Macalloy rod nut.

The following three methods are described as follows:
1.) ABF ironworkers: Measure the elongation at 25% and 100% Pjack from the end of the Macalloy rod nut to the bearing plate. Add the two elongations together.
2.) Caltrans engineers: Measure the elongation only at 100% Pjack accounting for the snugging by calculating elongation for 75% of the elongation and factoring in the calculation dead end seating, coupler seating, and the elongation in the "dummy bar". This method accounts for the total change in length for the entire stressing system. After the the pressure is released the change in ram distance is measured to measure anchor set of the live end nut. This measurement can be done with the digital calipers, see the photo below for more details.
3.) Caltrans engineers: Measure the length (elongation) of the Macalloy rod before and after stressing.

- See Chris Havel, Abbas Iranmanesh, and John Lyons diaries for more details regarding ABF and Macalloy's equipment, labor, and operations for stressing (100% of Pjack) the South W2E Hinge K Macalloy rods. Also for the start of "snugging" (25% of Pjack) the North W2E Hinge K Macalloy rods

The following are the comments related to the two lift-offs performed today:
1.) The two lift-offs were performed on the top Macalloy rods in row 1 of the 100% Pjack of the stressing sequence starting with the north Macalloy rod.
2.) As the first Macalloy rod lift-off was in progress, John (Macalloy technician) stopped the pump at 18,600psi due to a noticeable change in the pump dial. It was at this moment where the ABF ironworker checked the Macalloy nut which was found to be loose. The Macalloy rod was then restressed to 100% Pjack and the nut was tightened again.
3.) There was no observed movement for the south top Macalloy rod nut that is number 1 in the stressing sequence.
4.) Abbas observed the operation from the pump and I watched the ironworker during the lift-offs.

Attachment

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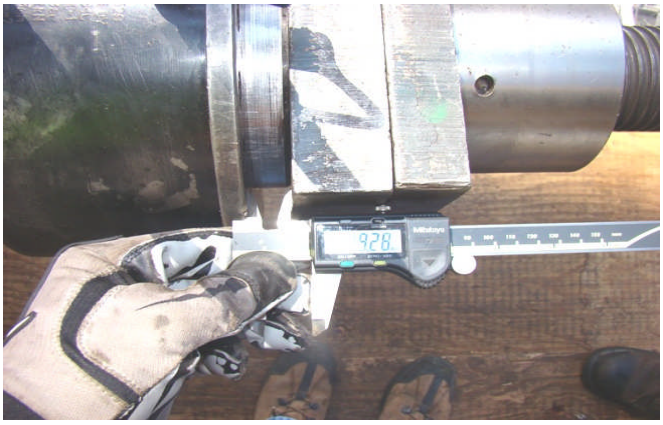
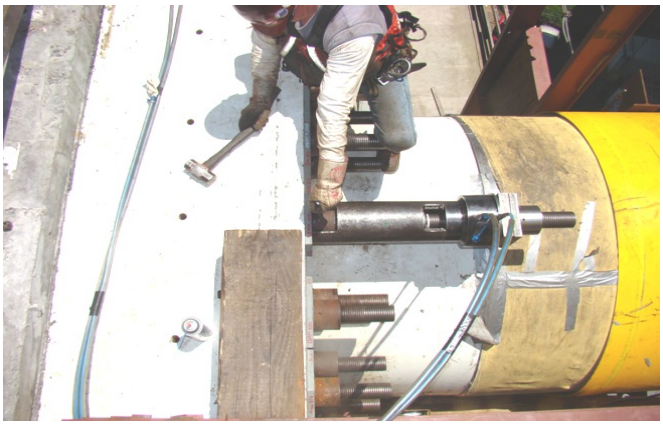


Elongation of the the right Macalloy rod in row 23 of the stressing sequence measured from the point of loadng, end of ram to bearing plates.

Performing the first lift-off on the top Macalloy rod that is in row 1 of the stressing sequence for the South W2E Hinge K pipe beam assembly.



After the pump was brought to a pressure of 18,600psi due to noticeable changes in the dial movement, the nut was loose.

Observed gauge pressure on the loose Macalloy nut for the top Macalloy rod that is in row 1.